



EMWD Education Pathways Program-CTE Program and Individual units

0. INTRODUCTION TO CAREERS IN THE WATER INDUSTRY COMPLETE PLAN OUTLINE

- a. Career Technical Education Orientation Presentation (With notes)
- b. Water Education CTE program “What to “Expect?”
- c. RIASEC test
- d. Begin work on portfolio

1. URBAN WATER CYCLE

- a. Pretest urban water cycle
- b. Fast facts
- c. Lesson plan
- d. Student project
- e. Continue work on student portfolio
- f. Post test
- g. Student assessment

2. WATER HISTORY

- a. Pretest history of imported and groundwater
- b. Fast facts
- c. Lesson plan
- d. History of Imported water and local groundwater lesson presentation and notes
- e. History of groundwater in the area activity
- f. History of water in the EMWD service area activity Jeopardy
- g. History of water in the EMWD service area activity Jeopardy (Q&A Key)
- h. Groundwater information document
- i. Water history field trip
- j. Student project
- k. Portfolio
- l. Post test
- m. Student assessment



3. WATER DISTRIBUTION (47 PER FAMILY PER DAY)

- a. Pretest water distribution
- b. Fast facts water distributions
- c. Lesson plan:
 - Water distribution
 - GIS
 - SCADA
- d. Lesson plan water distribution presentation and notes
- e. Water Distribution activities:
 - Simulation activity for water distribution
 - Water distribution Jeopardy
- f. Simulation activity
 - allocation figures for water distribution
 - Simulation activity
 - Surprise scenarios for water distribution
- g. Water Distribution field trip
- h. Water distribution post field trip classroom worksheet
- i. Student project
- j. Student portfolio
- k. Post test
- l. Student assessment

4. WATER FILTRATION

- a. Pretest water filtration
- b. Fast facts
- c. Water filtration and desalination lesson PowerPoint and notes
- d. Water Flocculation lesson plan and activity
- e. Water filtration lesson plan activity
- f. Water filtration and desalination field trip
- g. Student project and Portfolio
- h. Post test
- i. Student assessment



5. WATER QUALITY

- a. Pretest water quality and backflow
- b. Fast facts water quality
- c. Water quality lesson plan presentation and notes
- d. Certifications Required
- e. Consumer Confidence Report review
- f. Exploring pH levels activity
- g. Backflow and cross connection lesson plan
- h. Backflow classroom activity
- i. Backflow presentation and notes
- j. Field trip?
- k. Student project
- l. Portfolio
- m. Post test

6. WASTEWATER TREATMENT

- a. Pretest wastewater, collection, treatment, and recycled water
- b. Source control
- c. Fast facts wastewater and recycled water
- d. Wastewater treatment lesson plan
- e. Wastewater treatment process presentation and notes
- f. Wastewater treatment activity
 - Sketch activity
 - To flush or not to flush
- g. Field trip
- h. Field trip discussion questions
- i. Student project
- j. Portfolio
- k. Post test
- l. Student assessment



7. JOB SHADOWING

- a. Fast Facts Job shadowing
- b. Job shadowing presentation and notes
- c. Classroom and onsite activities
- d. To include stories of intern success stories
- e. Job shadow lesson packet
- f. Resume' lesson plan
- g. Allow students to set up job agent and apply for a position with EMWD.
- h. Activity
 - Classroom planning for job shadowing
 - Mock interviews
 - Onsite job shadowing
- b. Student project
- c. Portfolio
- d. Post test
- e. Student assessment

8. CAPSTONE PROJECT

- a. Discussion about project requirements
- b. Students review and discuss sample capstone requirements
- c. Potential for:
 - Scholarship
 - Internship
 - Apprenticeship
 - 3-day field trip to either the Colorado River Aqueduct or State Water Project
- d. EMWD Recognition event for students and teachers



POTENTIAL UNIT COMPONENTS

- PRE-COURSE ASSESSMENT
- NAME OF UNIT “FAST FACTS”
- ORIENTATION (EXPERTS POWERPOINT OR PDF)
- LESSON
 - PRESENTATION SCRIPT
 - PRESENTATION
 - VIDEOS
 - CLASSWORK
 - ACTIVITIES/EXPERIMENTS
- FIELD TRIPS
- STUDENT PROJECT
 - VLOG
 - JOURNAL
 - VIDEO MONTAGE
 - TIK TOK
 - PODCAST
 - APPROVED STUDENT CHOICE (TEACHER DISCRETION)
- POST-COURSE ASSESSMENT
- PORTFOLIO

PROGRAM COMPLETION CAPSTONE PROJECT

- DEBATE
- PODCAST
- COMMUNITY PROJECT
- STUDENT APPROVED CHOICE (TEACHER DISCRETION)